REMARKS

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Claims 1, 2, 4-7, 9-17, 20-32, 34-44, 46-53 and 55-58 are pending.

Entry of Amendment under 37 C.F.R. § 1.116

The Applicant requests entry of this Rule 116 Response because: the response was not earlier presented because the Applicant believed in good faith that the cited references did not disclose the present invention as previously claimed.

I. Rejection under 35 U.S.C. § 103

In the Office Action, at page 4, numbered paragraph 5, claims 1-7, 9-17, 20-31, 34-44, 46-53 and 55-58 were rejected under 35 U.S.C. § 103(a) as being unpatentable over various combinations of U.S. Patent 5,276,436 to Shaw et al., U.S. Patent 5,886,545 to Sakuda et al. and U.S. Patent No. 5,808,693 to Yamashita et al. These rejections are respectfully traversed.

The combination of the teachings of Shaw and Sakuda does not suggest that:

> the signal checking unit checks whether the identified input signal is abnormal by one of decoding the identified input signal and sensing whether an input signal cable is connected to the display device,

as recited in independent claim 1.

Shaw does not discuss or suggest that "the signal checking unit checks whether the identified input signal is abnormal by one of decoding the identified input signal and sensing whether an input signal cable is connected to the display device."

Shaw discusses, at col. 9, lines 43-62 and Fig. 6, that a configure program 600 begins and sets default settings for the preferred types of video signal sources, i.e., NTSC, PAL, etc. After the default settings have been established, a determination 605 is made as to whether the microprocessor is currently receiving an HSYNC signal from the analog multiplex unit, and if no signal is being received, the analog multiplex control signal MUX CONTROL is switched allowing the HSYNC and VSYNC signal from another video signal source to be coupled to the microprocessor 36.

The present invention of claim 1, for example, receives an input signal, identifies the type of the input signal and checks whether the identified input signal is abnormal by sensing whether

an input signal cable is connected to the display device, for example. Shaw does not discuss or suggest that a signal checking unit checks whether an identified input signal is abnormal by sensing whether an input signal cable is connected to the display device.

The determination at 605 in Shaw is "whether the microprocessor is currently receiving an HSYNC signal from the analog multiplex unit 34." As shown in Fig. 3, the analog multiplex unit 34 is always electrically connected to the microprocessor 36. Thus, the microprocessor 36 cannot sense whether an input signal cable is connected to the display device.

Shaw discusses only that the microprocessor 36 is able to determine whether an HSYNC signal is being received from the analog multiplex unit 34. However, making a determination only as to whether an HSYNC signal is being received from the analog multiplex unit 34 does not suggest that the microprocessor 36 is able to sense a connection of the input signal cable itself. In particular, the input signal cable may be connected even if the microprocessor 36 determines that the HSYNC signal is not being received. The microprocessor 36 is not able to make a determination as to whether the input signal cable is connected or not. Shaw only discloses that the microprocessor 36 determines whether an HSYNC signal is being received. Thus, the determination that is made is as to the HSYNC signal, but not the connection or non-connection of the input signal cable. Shaw does not disclose that the microprocessor 36 is capable of making a determination as to whether or not an input signal cable is connected.

As Shaw does not explicitly disclose that the microprocessor 36 senses whether or not an input signal cable is connected to the display device, the Examiner appears to allege that the microprocessor 36 inherently senses whether or not an input signal cable is connected. However, as discussed in M.P.E.P. § 2112, "[t]o establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted).

Here, Shaw does not make clear that the microprocessor 36 necessarily senses whether an input signal cable is connected. Shaw only discloses that the microprocessor 36 determines whether an HSYNC signal is being received. However, whether or not the input signal cable is connected is not determined by the microprocessor 36. For example, the microprocessor 36 may determine that an HSYNC signal is not received, even if the input signal cable is connected. Thus, it is not clear that the microprocessor 36 of Shaw is able to sense whether an input signal

cable is connected to the display device only upon determining that an HSYNC signal is or is not received.

Therefore, Shaw does not disclose a signal checking unit that checks whether an identified input signal is abnormal by sensing whether an input signal cable is connected to the display device.

Additionally, Shaw does not discuss or suggest that the signal checking unit checks whether the identified input signal is abnormal by decoding the identified input signal.

Shaw discloses "after the default settings have been established, the program proceeds to a decision instruction 605 in which a determination is made whether the microprocessor is currently receiving an HSYNC signal from the analog multiplex unit 34. If there is no signal being received, the program proceeds to instruction box 607 to cause the analog multiplex control signal MUX CONTROL to be switched allowing the HSYNC and VSYNC signal from another video signal source to be coupled to the microprocessor 36 [emphasis added]." The analog multiplex unit 34 and the microprocessor 36 are shown in Fig. 3.

The "input signal" of Shaw, alleged to correspond to the "input signal" of claim 1, is a signal from a video cassette recorder 20, personal computer 21, video disc unit 22, video camera 24, television tuner 41 or a television receiver 43. Accordingly, the analog multiplex unit 34 or the microprocessor 36 of Shaw must have a function of checking whether the identified input signal is abnormal by decoding the identified input signal, for example. Thus, to conform with claim 1, which requires receiving an input signal, identifying the type of the input signal and checking whether the identified input signal is abnormal by decoding the identified input signal, for example, Shaw must receive an input signal, identify the type of input signal and check whether the identified input signal is abnormal by, for example, decoding the identified input signal.

However, neither the analog multiplex unit 34 nor the microprocessor 36 has the function of checking whether an identified input signal is abnormal by decoding the identified input signal. In particular, the analog multiplex unit 34 cannot have the function of checking whether the identified input signal is abnormal by decoding the identified input signal, because the analog multiplex unit 34 is a conventional multiplexer, allowing either the output signals from the signal converter 32 or the output signals from the video drive module 26 to be coupled to the high speed color enhancing interface controller 12 (see col. 6, lines 25-26). Further, the microprocessor 36 cannot have the function of checking whether the identified input signal is abnormal by decoding the identified input signal, because the microprocessor 36 only has a

function to analyze the period and polarity of the HSYNC and VSYNC signals (see col. 9, lines 67-68). Specifically, analyzing the period and polarity of HSYNC and VSYNC signals is not "decoding the identified input signal," as recited in independent claim 1, because it means the reverse operation for an operation of "encoding" a signal.

Therefore, Shaw does not discuss or suggest decoding the HSYNC and VSYNC signals to check whether the HSYNC and VSYNC signals are abnormal. Thus, Shaw does not disclose receiving an input signal, identifying the type of the input signal, and checking whether the identified input signal is abnormal by decoding the identified input signal, as discussed in independent claim 1.

Shaw therefore does not suggest that an identified input signal is checked for abnormality either by decoding the identified input signal or by sensing whether an input signal cable is connected to the display device.

Sakuda fails to make up for the deficiencies in Shaw.

Therefore, as the combination of the teachings of Shaw and Sakuda does not suggest all the features of independent claim 1, claim 1 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

Further, the combination of the teachings of Shaw and Sakuda does not suggest that "the checking comprises determining whether the identified input signal is abnormal by at least one of decoding the input signal and sensing whether an input signal cable is connected to the display device," as recited in independent claim 6. Therefore, claim 6 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

Also, the combination of the teachings of Shaw and Sakuda does not suggest that "the signal checking unit checks whether the identified input signal is abnormal by one of decoding the identified input signal and sensing whether an input signal cable is connected to the display device," as recited in independent claim 11. Therefore, claim 11 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

The combination of the teachings of Shaw and Sakuda additionally does not suggest that "the checking comprises at least one of decoding the input signal and sensing whether a signal input cable is connected," as recited in independent claim 25. Therefore, claim 25 patentably

distinguishes over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

In addition, combination of the teachings of Shaw and Sakuda does not suggest that "the signal checking unit checks whether the input signal is normal by decoding the input signal or sensing whether a cable via which each signal is input is connected," as recited in amended independent claim 40. Therefore, claim 40 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

The combination of the teachings of Shaw and Sakuda further does not suggest that "whether the analog input port receives the normal analog input signal is determined by decoding the input signal or sensing whether a cable via which each signal is input is connected," as recited in independent claim 47. Therefore, claim 47 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

In addition, the combination of the teachings of Shaw and Sakuda does not suggest that "whether the digital input port receives the normal digital input signal is determined by decoding the input signal or sensing whether a cable via which each signal is input is connected," as recited in independent claim 48. Therefore, claim 48 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

Also, the combination of the teachings of Shaw and Sakuda does not suggest that "whether the input signal is normal is checked by decoding the input signal or sensing whether a cable via which each signal is input is connected," as recited in independent claim 49. Therefore, claim 49 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

Claims 2, 4, 5, 7, 9, 10, 12-17, 22-24, 26-31, 36-44, 46, 50-53 and 55-58 depend either directly or indirectly from independent claims 1, 6, 11, 25, 40 and 47-49 and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the references relied upon. Therefore, claims 2, 4, 5, 7, 9, 10, 12-17, 22-24, 26-31, 36-44, 46, 50-53 and 55-58 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

Yamashita fails to make up for the deficiencies in Shaw and Sakuda. Claims 20, 21, 34 and 35 depend either directly or indirectly from independent claims 11 and 25 and include all the

features of their respective independent claims, plus additional features that are not discussed or suggested by the references relied upon. Therefore, claims 20, 21, 34 and 35 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

Conclusion

In accordance with the foregoing, claims 1, 2, 4-7, 9-17, 20-32, 34-44, 46-53 and 55-58 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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